

RESPONSE

I. Markush Format

The Examiner states that “applicants have presented instant claims in improper Markush format” because the claims “fail to share the characteristics of a genus” (the Requirement at page 2). Applicants point out for the record that this is simply not true. The present nucleotide sequences (SEQ ID NOS:1, 3 and 5) are all encoded by a common genetic locus, and represent alternative transcripts of this genetic locus. Thus, the sequences share “a substantial structural feature” (the Requirement at page 2), and are thus properly included in a Markush claim.

II. Restriction Requirement

The Examiner has determined that the original claims are directed to three separate and distinct inventions under 35 U.S.C. § 121, as follows:

- Group I: Claims 1 (in part) and 2, said to be drawn to the extent of nucleic acids encoding SEQ ID NO:4 (including SEQ ID NO:3), classified in class 536, subclass 23.1;
- Group II: Claims 1 (in part) and 3, said to be drawn to the extent of nucleic acids encoding SEQ ID NO:2 (including SEQ ID NO:1), classified in class 536, subclass 23.1; and
- Group III: Claims 1 (in part) and 4, said to be drawn to the extent of nucleic acids encoding SEQ ID NO:6 (including SEQ ID NO:5), classified in class 536, subclass 23.1.

III. Response to Restriction Requirement

Applicants submit that the Group I and III inventions should be put together into a single group, since the nucleotide sequence of SEQ ID NO:3 also comprises the nucleotide sequence of SEQ ID NO:5, and thus encodes both SEQ ID NO:4 and SEQ ID NO:6. Thus, the statement in the Requirement that searching SEQ ID NO:3 and SEQ ID NO:5 “in a single patent application would bear an undue search burden on the examiner and the USPTO’s resources because the indicated searches are not co-extensive” (the Requirement at page 3) is incorrect. No additional search burden is required to search SEQ ID NO:3

and SEQ ID NO:5, since a search of the longest sequence (SEQ ID NO:3, which encodes SEQ ID NO:4), corresponding to the Group I invention, will necessarily also search the shorter sequence (SEQ ID NO:5, which encodes SEQ ID NO:6), corresponding to the Group III invention.

Therefore, in response to the Requirement, Applicants hereby traverse the Restriction Requirement with regard to the Group I and III inventions. However, solely in order to comply with the provisions of 37 C.F.R. § 1.143, Applicants provisionally elect to prosecute the claims of the Group I invention (claims 1 (in part) and 2), drawn to the extent of nucleic acids encoding SEQ ID NO:4 (including SEQ ID NO:3), classified in class 536, subclass 23.1.

Applicants reserve the right to refile claims to the non-elected invention in one or more future applications retaining the priority date of the present case and the earlier cited priority applications.

IV. Status of the Claims

Claim 3 has been cancelled without prejudice and without disclaimer as being drawn to a non-elected invention. No claims of the Group I or III inventions have been cancelled. Claims 1 and 2 have been amended. New claims 5-12 have been added.

Claims 1, 2 and 4-12 are therefore presently pending in the case.

V. Support for the Amended and Newly Added Claims

Claim 1 has been amended to remove reference to the non-elected invention. Support for this claim can be found throughout the specification as originally filed.

Claim 2 has been amended to recite that the stringent hybridization conditions are highly stringent hybridization conditions. Support for this claim can be found throughout the specification as originally filed, with particular support being found at least at page 4, lines 28-31.

Claim 5 has been added to recite a nucleotide sequence that encodes the amino acid sequence shown in SEQ ID NO:4. Support for this claim can be found throughout the specification as originally filed, with particular support being found at least at page 2, line 7.

Claims 6 and 7 have been added to recite a nucleotide sequence comprising the nucleotide

sequence of SEQ ID NO:3 and SEQ ID NO:5, respectively. Support for these claims can be found throughout the specification as originally filed, with particular support being found at least in claim 1 as originally filed.

Claims 8-11 have been added to specifically recite recombinant expression vectors comprising nucleic acid molecules of the present invention. Support for these claims can be found throughout the specification as originally filed, with particular support being found at least at page 14, lines 16-22.

Claim 12 has been added to specifically recite host cells comprising the recombinant expression vectors of claim 8. Support for this claim can be found throughout the specification as originally filed, with particular support being found at least at page 14, lines 23-29.

It will be understood that no new matter is included within the amended or newly added claims.

VI. Conclusion

The present document is a complete response to the Restriction Requirement. Applicants believe that the claims of the instant application meet all of the conditions for patentability and are in condition for allowance. Accordingly, an early indication of the same is respectfully requested. Should Examiner Turner have any questions or comments, or believe that certain amendments of the claims might serve to improve their clarity, a telephone call to the undersigned Applicants' representative is earnestly solicited.

Respectfully submitted,

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Date



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